

**THE RARE SHRIMP, *PHYLLOGNATHIA CERATOPHTHALMA* (BALSS), DISCOVERED IN MORETON BAY.**

*Memoirs of the Queensland Museum* 32(1): 98:- A collection of Crustacea was made by SCUBA diving at Myora, North Stradbroke Island, Moreton Bay. One particularly striking species excited interest, and proved to be the rare shrimp *Phyllognathia ceratophthalma* Balss. The Myora coral community occurs as a shallow (1-3m), narrow reef, with six coral species (Lovell, 1989). It is unusual within Moreton Bay in having large plates of *Acropora digitifera* (Dana). These grow attached to loose rubble on a muddy-sand substrate, which means they are easily overturned to sample the associated fauna. This small reef has a high diversity of invertebrates, including species which are more typically expected on outside reefs. This is possibly because during times of flooding when the rest of the Bay is subject to severe freshwater dilution, circulation patterns within the Bay cause a pooling of undiluted seawater along the northern side of Stradbroke Island. The reef also lies just to the side of the main channel leading in and out of the Bay, so recruitment from open coastal waters, and the warm southerly flowing East Australian Current, can be expected. See Bruce (1991) for full synonymy.

***Phyllognathia ceratophthalma* (Balss, 1913)**

*Hymenocera* (?) *ceratophthalma* Balss, 1913: 236.

*Phyllognathia ceratophthalma*: Borradaile, 1915: 206; Bruce, 1991: 267-269, fig. 28.

**Material Examined:** QM W17487, 1 ♂ (8.0 mm cl (including rostrum)) & 1 ♀ (11.0 mm cl), Myora, Moreton Bay, 2m, in hole in base of *Acropora digitifera* plate, 14.4.1992, P. Davie. **Remarks:** Bruce (1991) provided a modern figure and description of this apparently rare shrimp. The present specimens have an identical colour pattern to that described by Bruce (1991) but differ in having a translucent

white/cream, rather than yellow-brown, background colour. Despite being known since 1913, and despite widespread use of SCUBA for underwater collecting over the past 25 years, this strikingly coloured shrimp is known from only four previous records: Satsuma, Japan, the type locality (Balss, 1913); Maldive Islands (Borradaile, 1915); Lizard Is., northern Great Barrier Reef; New Caledonia (Bruce, 1991). The present record is a significant southerly range extension.

On the tenth day after capture, the female was seen to release larvae from under her abdomen although her ovigerous state had not been previously apparent from casual observation. 25 first stage zoeae were released, and a further 16 were found in a 'brood pouch' formed by the broad, overlapping pleopods. This species is reproductively a K-strategist, with a small number of large eggs. It probably can maintain a breeding population at this southerly, subtropical locality. The first zoeae will be described elsewhere. Facilities were not available to rear them to later stages.

**Literature Cited**

Balss, H. 1913. Diagnosen neuer ostasiatischer Macruren. *Zoologische Anzeiger* 42: 234-9.

Borradaile, L.A. 1915. Notes on Carides. *Annals and Magazine of Natural History* (8) 15: 205-13.

Bruce, A.J. 1991. Shallow-water Palaemonoid shrimps from New Caledonia (Crustacea: Decapoda). Pp. 221-79, figs 1-31. In Richer de Forges, B. (ed.), 'Le benthos des fonds meubles des lagons de Nouvelle-Calédonie, Vol. 1. Études et Thèses.' (ORSTOM: Paris).

Lovell, E.R. 1989. Coral assemblages of Moreton Bay, Queensland, Australia, before and after a major flood. *Memoirs of the Queensland Museum* 27(2): 535-50.

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FIG. 1: *Phyllognathia ceratophthalma* (Balss, 1913), Queensland Museum W17487.